



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,161	12/31/2001	Philip T. Dempster	LM-003	3996

1473 7590 05/01/2003  
FISH & NEAVE  
1251 AVENUE OF THE AMERICAS  
50TH FLOOR  
NEW YORK, NY 10020-1105

EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 05/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/036,161

Applicant(s)

DEMPSTER, PHILIP T.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-15,21-24 and 46-53 is/are rejected.
- 7) ☒ Claim(s) 3-7,16-20,25-45 and 54-62 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 12, 23, 50, 2, 8, 9, 10, 11, 13, 14, 15, 21, 22, 24, 46, 47, 48, 49, 51, 52, 53 are rejected under 35 U.S.C. 102(b) s being anticipated by Dempster (U.S. Patent 5,105,825)

Regarding claim 1:

Dempster discloses a method for calibrating a plethysmographic measurement system, the method comprising (a) measuring the combined volume of a plethysmographic measurement chamber and a known calibration volume coupled to said chamber by an opening to obtain a baseline volume measurement (col. 2-3, lines 55-5, fig. 2); (b) sealing off said known volume from said chamber with an electronically controlled valve coupled to said opening (col. 4, lines 38-45, fig. 4); (c) measuring the volume of said measurement chamber sealed off from said reference volume to obtain a comparison volume measurement (fig. 4); (d) calibrating the plethysmographic measurement system based on the known calibration volume and a comparison of said baseline

Art Unit: 2863

volume measurement and said comparison volume measurement (col. 3, lines 11-15).

Regarding claim 12:

Dempster discloses a method for calibrating a plethysmographic measurement system, the method comprising (a) measuring the volume of a plethysmographic measurement chamber to obtain a baseline volume measurement, wherein an opening coupling said measurement chamber to a known calibrated volume has been sealed with an electronically controlled valve (col. 2-3, lines 55-5, fig. 2, col. 4, lines 38-45, fig. 4); (b) unsealing the opening coupling said known volume to said measurement chamber with said electronically controlled valve (col. 4, lines 38-45, fig. 4); (c) measuring the combined volume of the measurement chamber and the known calibration volume coupled to said chamber by said opening to obtain a comparison volume measurement (fig. 2-4); (d) calibrating the plethysmographic measurement system based on the known calibration volume and a comparison of said baseline volume measurement and said comparison volume measurement (col. 3, lines 11-15).

Regarding claim 23:

Dempster discloses a calibration system for calibrating a plethysmographic measurement system, the calibration system comprising: a computer; a calibration volume chamber of known volume (col. 2-3, lines 56-10) , including an

Art Unit: 2863

opening coupling said calibration volume chamber to a plethysmographic measurement chamber (fig. 4); an electronically controlled valve responsive to said signals from said computer (col. 4, lines 38-45), for sealing and unsealing said opening (col. 4, lines 38-45); wherein said computer initializes a calibration sequence prior to conducting a plethysmographic measurement of a test subject (col. 3, lines 10-15).

Regarding claim 50:

Dempster discloses a plethysmographic measurement system for conducting body composition measurements, comprising: a plethysmographic measurement chamber (col. 2-3, lines 56-5); measurement components , for measuring the volume of said test subject (col. 3, lines 6-10, fig. 1, unit 22); a calibration volume chamber (col. 3, lines 10-15), coupled to said measurement chamber by an opening (col. 4, lines 38-45); an electronically controlled valve for sealing and unsealing said opening (col. 4, lines 38-45); a computer for operating said measurement system (fig. 1, unit 22); wherein said computer initiates and runs a calibration sequence using said calibration volume and said valve, without intervention by a medical technician (abstract, col. 4, lines 38-45).

Regarding claims 2, 8, 9, 10, 11, 13, 14, 15, 21, 22:

Dempster also discloses:

Art Unit: 2863

The plethysmographic measurement system for conducting measurements with a known volume (abstract).

The method wherein steps (a)(d) in claim 1 occur without intervention of a medical technician conducting a plethysmographic measurement using said measurement system (abstract).

The method wherein steps (a)(d) in claim 1 are conducted transparently to said medical technician (fig. 1, unit 27).

The method further comprising: conducting a plethysmographic measurement of a test subject prior to measuring the combined volume of the plethysmographic measurement chamber and the known calibration volume coupled to said chamber to obtain a baseline volume measurement (col. 2-3, lines 56-10), and wherein calibrating the plethysmographic measurement system based on the known calibration volume and a comparison of said baseline volume measurement and said comparison volume measurement further comprises adjusting a result of the plethysmographic measurement of the test subject based on said calibration of the measurement system (col. 3, lines 6-25, col. 4, lines 38-45, fig. 2-4).

The method further comprising conducting a plethysmographic measurement of a test subject after calibration of the system (col. 3, lines 6-24, col. 9, lines 29-42).

Regarding claims 24, 46, 47, 48, 49, 51, 52, 53:

Art Unit: 2863

- Dempster also discloses:

The calibration system wherein the volume chamber has a fixed volume (fig. 1, unit 1).

The calibration system wherein the calibration volume chamber is housed within said plethysmographic measurement chamber (fig. 1, unit 1, 8,20).

The calibration system wherein the calibration volume chamber is mounted on the outside of said plethysmographic measurement chamber (fig. 1, unit 21).

The calibration system further comprising a manifold, coupled between said calibration volume chamber and said plethysmographic measurement chamber (fig. 1, unit 11,18).

The measurement system further comprising a valve actuation assembly for opening and closing said valve in response to a signal from said computer (fig. 1, unit 22, 21, 14).

The calibration system wherein said calibration sequence is conducted without interaction by a medical technician (abstract).

### ***Claim Objections***

2. Claim 42 is objected because the claim can not depend on itself. The examiner assumes claim 42 is depend on claim 41 for the rest of the application, correction is required.

Art Unit: 2863

3. Claims 3-7, 16-20, 32, 25-31, 33-45, 54-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach the use of a actuation assemble move a shaft coupled between assemble and valve to close the valve against the opening, use a cam in the actuation assembly, a solenoid plunger, a pivotal joint, motion of a shaft, a pneumatic system to activate the shaft, a rotary motor, a ball screw coupled to rotary motor in a valve to open and close.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309.

The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.



Art Unit: 2863


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TC2800 RightFAX Telephone Numbers : TC2800 Official Before-Final RightFAX - (703)

872-9318, TC2800 Official After-Final RightFAX - (703) 872-9319

TC2800 Customer Service RightFAX - (703) 872-9317

TL

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800